

WHAT IS CLAIMED IS:

1. A system for delivery of services to at least one client program on a mobile device adapted to communicate in a wireless manner comprising:

a plurality of communication/detection devices, each of the communication/detection devices having a known range, each of the communication/detection devices being adapted to detect the presence of the mobile device when the mobile device is within the range thereof and to communicate information between the mobile device and the communication/detection device when the mobile device is within the range thereof;

at least one multiplexer in communication with at least one of the communication/detection devices; and

at least one server including content stored thereon to provide at least one service to the client program on the mobile device, the server being in communication with the multiplexer, the service to be provided to the mobile device depending on which one of the plurality of communication/detection devices is in communication with the mobile device.

2. The system of claim 1 wherein the multiplexer intermediates communication between the server and the communication/detection devices so that the client of the mobile device does not require information of the

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communication path to the server and the server does not require information of the communication path to the communication/detection devices.

3. The system of claim 1 wherein at least one service group including at least one service is set by the server to be available to a physical space defined by at least one communication/detection device.

4. The system of claim 3 wherein an aggregate space is defined by a set of at least two physical spaces, the server setting at least one service group to be available to the aggregate space.

5. The system of claim 4 wherein a higher level aggregate space is defined as a set of aggregate spaces, the server setting at least one service group to be available to the higher level aggregate space.

6. The system of claim 3 wherein the physical space is defined by multiple communication/detection devices and the multiplexer includes a software program to determine whether the mobile device is within the physical space from detection information provided to the multiplexer by the communication/detection devices.

7. The system of claim 1 wherein multiple servers are in communication with the multiplexer.

8. A method of providing services to a client program running on a mobile device, the mobile device being

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capable of wireless communication, the method comprising the steps of:

defining a physical space by location therein of at least one communication/detection devices having a known range, the communication/detection device being adapted to detect the presence of the mobile device when the mobile device is within the range thereof and to communicate information between the mobile device and the communication/detection device when the mobile device is within the range thereof; and

mapping a first service group including at least one service to be available client programs determined to be within the physical space.

9. The method of Claim 8 wherein the service group includes a plurality of services.

10. The method of Claim 8 further comprising the steps of:

combining a plurality of physical spaces in a set to define an aggregate space; and

mapping a second service group including at least one service to be available to client programs determined to be present within the aggregate space.

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11. The method of Claim 10 further comprising the steps of:

combining a plurality of aggregate spaces in a set to define a higher level aggregate space; and

mapping a third service group including at least one service to be available to client programs determined to be present within the higher level aggregate space.

12. The method of claim 8 wherein the physical space is defined by multiple communication/detection devices and a software program determines whether the mobile device is within the physical space from detection information provided to the software program by the communication/detection devices.

13. The method of claim 10 wherein each of the physical spaces corresponds to departments within a place of business and the aggregate space corresponds to the entire place of business.

14. The method of claim 11 wherein each of the physical spaces correspond to departments within a place of business, the aggregate spaces correspond to the entire place of business, and the higher level aggregate space corresponds to a plurality of places of business in a chain.

15. A method of providing services to a client program running on a mobile device, the mobile device being

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capable of wireless communication, the method comprising the steps of:

defining a physical space by location therein of a plurality of communication/detection devices having a known range, each communication/detection device being adapted to detect the presence of the mobile device when the mobile device is within the range thereof and to communicate information between the mobile device and the communication/detection device when the mobile device is present within the range thereof;

providing at least one server having at least one proximity-based application stored thereon, the proximity-base application being adapted to provide a service to be available to a client program stored on the mobile device when the mobile device is within the space, the service content being based upon higher level proximity-based events determined by recurring measurement of the presence or absence of the mobile device within the space; and

providing at least one intermediary, the intermediary being in communication with the plurality of communication/detection devices and in communication with the server, the intermediary including a program to determine if the mobile device is present within or absent from the space from detection information provided by the plurality of communication/detection devices, the intermediary adapted to transmit the information of whether the mobile device is present within or absent from the space to the server.

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16. The method of Claim 15 wherein the proximity-based events include an enter space proximity event, a still within space event, a temporarily left space event, a returned to space event, and an exited space event.

17. The method of Claim 15 wherein service content addressed from the server to the client on the mobile device is transmitted to the intermediary for storage thereon and transmitted to the client upon request by the client.

18. A method of providing services to a client program running on a mobile device, the mobile device being capable of wireless communication, the method comprising the steps of:

providing at least one server having at least one proximity-based application stored thereon, the proximity-based application being adapted to provide a first service to be available to a client program stored on the mobile device when the mobile device is determined to be within a set of spaces including at least one space, the service content being based upon higher level proximity-based events determined by periodic measurement of the presence or absence of the mobile device within the set of spaces;

determining whether the mobile device is present within each of the spaces in the set of spaces using a plurality of communication/detection devices having a known range, each communication/detection device being adapted to detect

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the presence of the mobile device when the mobile device is within the range thereof and to communicate information between the mobile device and the communication/detection device when the mobile device is present within the range thereof; and

providing the information of whether the mobile device is present within each space of the set of spaces to the server in a periodic manner to enable the server to determine the higher level proximity-based events.

19. The method of Claim 18 further including the step of communicating content from the server to a client program on the mobile device via at least one of the communication/detection devices.

20. The method of Claim 18 wherein the proximity-based events include an enter space event, a still within space event, a temporarily left space event, a returned to space event, and an exited space event.

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